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VOLUME XLVII MAY, 1948 NUMBER 5

THE EDUCATIONAL FUNCTIONS OF THE GEOGRAPHICAL SOCIETIES OF THE UNITED STATES*

JOHN K. WRIGHT
American Geographical Society, New York City

Our geographical profession might be compared to an army fighting an endless war for the cause of Enlightenment alongside the armies of other disciplines. The common enemy is Ignorance, with its ally, Folly. Facing our sector of the front stand the entrenched legions of Geographical Ignorance and Folly, and they are particularly tough and "hard-boiled" foes of this country. Some spying on them, done last summer thru a Gallup poll, brought to light disturbing bits of intelligence—for example, that a third of the citizens of the United States would appear to have no clear idea of the location of France on the map of Europe and an eighth of the graduates of American universities "haven't caught on to the site of the British Isles." This would confirm, if confirmation were needed, Commissioner Studebaker's observation that "we are more illiterate geographically than any civilized nation I know." Yet, paradoxically enough, our geographical profession is on a par with, and in some respects in advance of, those of other civilized nations in enterprise, standards, and equipment.

Why, then, have we failed to conquer more ground? While we might have done so had our forces been larger, richer, and perhaps more aggressive, the geographical profession of the United States need not reproach itself for having fallen down on its job. The strength of the enemy and the vast areas that he still holds are due to far-reaching social and historical circumstances—among them the past international isolationism of this country—for which geographers and teachers of geography cannot reasonably be held responsible.

* Address prepared for delivery at a joint session of the National Council of Geography Teachers and the American Society for Professional Geographers at Charlottesville, Va., December 27, 1947.

We are today holding a staff conference to estimate the situation with a view to the planning of strategy and tactics. My contribution will be some observations on the functions of the seven leading geographical societies of the country. These fall into three groups: first, there are three that are concerned primarily with the advancement of geographical research: the American Geographical Society, founded in 1852, the Association of American Geographers, founded in 1904, and the Association of Pacific Coast Geographers, founded in 1935; second, there are two that are concerned with the advancement of geography as a profession: Gamma Theta Upsilon, founded in 1928, and the American Society for Professional Geographers, founded in 1943; and third, there are two concerned chiefly with the dissemination of geographical knowledge: the National Geographic Society, founded in 1888, and the National Council of Geography Teachers, founded in 1915. To save breath, I shall occasionally refer to certain of these societies by their initials. Unfortunately, there is insufficient time also to discuss local and regional societies, such as those of Texas, Chicago, and Philadelphia.

Before considering the seven societies individually, let us take a bird's-eye view of the operations of the Geographical Army as a whole. This army is conducting campaigns on two different fronts. One is a campaign against Geographical Ignorance in the minds of responsible and educated people who are endeavoring to solve important problems of various kinds in the fields of science, politics, administration, and the like: that is to say, a campaign for the advancement of geography in its scientific and practical aspects. The other, with which we are more particularly interested here, is the campaign along the Educational Front against Geographical Ignorance in the minds of children, students, and the public at large.

Fortunately for us, the enemy's forces are unorganized and more or less inarticulate. There is no American Anti-Geographical Association to give them leadership or encouragement. Our chief difficulties arise from certain weaknesses that have tended to reduce our own offensive power and have caused us at times to permit allied disciplines to shove us aside and take the initiative along segments of the front where we might well do a better job than they. Examples of this will undoubtedly occur to all in this room, especially those who have read the admirable professional papers of the NCGT.

Teachers form the infantry on the Educational Front, advancing the foremost lines and doing most of the hardest fighting. They are supported by an artillery of popularizers—lecturers, journalists, writers, makers of popular maps, and others—who blast away at the enemy's rear. Now and then a brilliant bomber, like Professor J. Russell Smith, flies over and demolishes a large stronghold of Geographical Ignorance with a single book.

Back of both fronts the geographical societies perform functions of two kinds: one as a part of a much larger Service of Supply which furnishes the munitions of war, and the other as a sort of General Staff. In the munitions of war the principal explosive ingredients are Geographical Information for the demolition of Geographical Ignorance, and, in some cases, Geographical Wisdom, for the destruction of Geographical Folly. The bombs, shells, bullets, and other projectiles actually used on the Educational Front consist partly of words spoken by lecturers on platforms and teachers in classrooms, and partly of textbooks, school maps and globes, and visual aids of all kinds. The explosive used in this matériel is taken for the most part from such containers of Geographical Information and Wisdom as monographs, periodical articles, and the minds of professors and other learned persons. Along with government agencies, university departments, and other scientific institutions, the geographical societies are concerned mainly with supplying the explosive rather than the actual projectiles.

The functions of the General Staff are divided among the geographical societies, which, unlike the general staffs of military forces, have no authority to issue orders—for which we may be duly thankful! They also differ substantially from military staffs in that much of their work is done by front-line soldiers from the ranks of the infantry. The teachers don brass hats when they attend meetings such as this.

The primary staff functions of the geographical societies are over-all policy-making and planning and the performance of various duties connected with the supply of munitions. Subsidiary to these are the secondary functions of intelligence, morale-building, inspectional, and promotional services. The geographical societies secure and circulate intelligence concerning the enemy, the geographical profession itself, and the activities of the allied disciplines. They build morale by facilitating social intercourse within

the profession and by recognizing distinguished service with special awards. In critically appraising, approving, or rejecting specific proposals, projects, and publications, they operate somewhat as do the inspection services of armed forces. Their promotional activities have to do with the protection and advancement of personal and professional interests for the ultimate purpose of rendering the profession as a whole a more efficient fighting body.

The offensive power of any army, whether of soldiers or of teachers, depends partly on its fighting spirit and partly on the up-to-dateness of its equipment and leadership. Indeed, high morale itself springs in some degree from the confidence that ultramodern equipment and leadership inspire. If the teachers on the Educational Front had to rely on antiquated Geographical Knowledge and on antiquated tactics in delivering this knowledge on the firing lines, their offensives would soon bog down. Thru unremitting original research alone are the subject matter and methods of geographical education kept up-to-date. Nevertheless, self-evident as this may seem, there are those on the battlefront who regard the Association of American Geographers and the American Geographical Society as recondite institutions cultivating interests that have little bearing on the conduct of the war.

The AGS and the AAG are essentially research institutions. Each in its own way is striving to develop new Geographical Knowledge and to dispense this knowledge to geographers and other persons of mature intelligence and some degree of educational background. In the actual forms in which this knowledge is issued by these two societies it is, for the most part, too complex, too highly concentrated, to be suitable for direct delivery against geographical ignorance in the minds of young folks and the public at large. For such use, it has to be reprocessed and put into special missiles. Altho such reprocessing is beyond the scope of either the AGS or the AAG, the knowledge that they purvey, nevertheless, exerts a far-reaching and powerful, if immeasurable, effect. Simplified and deconcentrated by teachers in teacher-training colleges, by writers of textbooks and popular works, and by not a few up-and-coming teachers in the elementary and high schools, much of it finds its way to the firing lines.

The activities of the AGS and the AAG are more or less complementary. The AGS, unlike the AAG, maintains a great stockpile or arsenal of Geographical Knowledge in its library and map col-

lection and also a professional staff engaged in original research and in the editing and publication of the results of original research. The general policies of the AGS are formed by its Council, a self-perpetuating body. The AAG, unlike the AGS, maintains no collections or professional staff, and holds membership meetings at which the results of original research are presented and discussed. Its policies are formed by a Council elected by the members, and its work is carried out by members serving individually or on committees. Theoretically no aspect of geography lies outside the sphere of interest of either society. Actually, the AGS has sought to develop more intensively than has the AAG the exploratory, mathematical, and cartographical aspects of geography and to take more account in its awards and publications of outstanding contributions that non-geographers have made to geographical knowledge. The AAG, on the other hand, has laid greater emphasis than has the AGS upon cultivating the philosophical and methodological concepts of geography. Both societies furnish the Geographical Army with intelligence, inspectional, and morale-building services. The AGS renders intelligence services thru articles and notes on current geographical work in the *Geographical Review* and thru the issuing of various bibliographical aids; the AAG thru its *News Letter* and the opportunities that its meetings afford for the interchange of information and ideas. Inspectional services are rendered by both societies in their acceptance or rejection of material for publication; the AGS supplements this by its reviews and notes in the *Geographical Review,* and the AAG by critical discussions at meetings. The AGS seeks to build morale thru the award of medals and of honorary memberships; the AAG thru the social features of its meetings, thru certain monetary awards, and possibly also—at least in so far as the morale of those chosen is concerned—thru its elections to membership.

For the geographers of the Pacific coast, the Association of Pacific Coast Geographers performs functions similar to those of the AAG. Dr. Freeman, its secretary, states that its purpose is to promote original research in geography by holding an annual program meeting, by the publication of papers in an annual *Yearbook,* by encouraging graduate students to present the results of their studies, and by making those working in geography up and down the Pacific coast acquainted with each other and with the work they are doing.

To turn now to the professional societies. Gamma Theta Upsilon is a fraternity open to undergraduate and graduate students in geography and also to alumni who have creditably completed a major or minor in that field. Its purposes are to further professional interest in geography and to afford opportunities for social contacts. It maintains and administers a loan fund of some $10,000, which has been accumulated from initiation fees and is used mainly to aid students undertaking graduate work in geography. The society has fifteen chapters in nine states and the District of Columbia and some 2,100 members.

The American Society for Professional Geographers is a lusty newcomer among the geographical societies. Dr. Starkey, its president, writes that its aim is "to advance the status of the geographical profession. The organization has been open to all serious workers in its field and has been set up so as to provide encouragement for the younger workers as well as fellowship for those who have attained greater professional recognition." In other words, promotion and morale building are the principal functions of both the ASPG and Gamma Theta Upsilon. Intelligence and other services are rendered by the ASPG thru the *ASPG News, The Professional Geographer,* and a directory listing research and other projects currently conducted by members, with their publications and fields of interest, as well as thru panel presentations and informal discussions. There is an active placement committee and other committees concerned with developing various plans of action. The ASPG does not seek to duplicate or parallel the activities of the AAG in matters pertaining specifically to original research.

The names of the two remaining societies to be considered both begin with the word "National." Altho both seek to promote original research to some degree—the National Geographic Society thru numerous exploring expeditions and the National Council of Geography Teachers in connection with the status and methods of geographical teaching—their main function is the dissemination of geographical knowledge. In certain superficial respects the National Geographic Society is comparable to the AGS and the National Council to the AAG. The National Geographic operates, as does the AGS, thru a professional staff, and the National Council, as does the AAG, thru the voluntary services of its members. In the form of its *Magazine,* its *News Bulletins* for the press, its *Educational*

Bulletins for teachers, and its maps, the National Geographic issues munitions of war in large quantities. If these are lacking in the high concentration of geographical explosive found in the publications of the AGS and AAG, they are perhaps better suited to direct use on the Educational firing lines. The National Council, thru the JOURNAL OF GEOGRAPHY, puts out a supply of munitions specially adapted for the use of teachers. It also performs an important service in the matter of strategic and tactical planning based on intelligence services. The *Professional Papers* of the National Council present thoroly considered plans founded on careful surveys of the enemy's forces as well as of the forces of the allied disciplines.

Let us now consider a few weaknesses in our Geographical Army and possible ways in which it might be strengthened.

We are certainly fighting for an excellent cause. To us the indispensability of geographical education seems so obvious that we often overlook the need of effective propaganda to this effect, designed to convince the public at large, and especially the administrators and financial supporters of educational and scientific institutions. We are not skilled in presenting our case in statements so thoroly thought thru, so clear, and so artistic in form that they carry compelling conviction. We are all too prone to plead in an academic or pedagogical jargon that tends to repel rather than to attract support.

There might well be a greater degree of co-ordination in our staff work. While cordial, friendly relations prevail between the geographical societies—while the AAG, the ASPG, and the National Council may meet together each year—there is nevertheless a tendency for each society to go its own way alone without much regard for what the others are doing, and at times the different societies work at cross purposes. Since no sharp line separates the professional from the research interests of geographers, it is anomalous to have two membership societies, the AAG and ASPG, within such a small profession as ours, representing as it were the observe and the reverse of the same coin. While the AAG, the AGS, and the National Council, on the other hand, perform distinctive services, the teaching of geography would benefit from more joint staff work on their part designed to promote a greater volume in the flow of new knowledge and new ideas from the fountain heads of original research to the Educational Front.

Most of the joint-staff work performed by the societies is done

on time borrowed or stolen from the primary jobs of teaching and research. Hence such staff work is a secondary consideration to those who do it and much of it is done sporadically, by fits and starts. Consecutive, effective working time can only be secured with money, and, with the possible exception of the NGS, all six of the societies are thwarted for want of adequate funds. If it is healthy for an institution to have more ideas than it has the money needed to put them into effect, it is unhealthy for it to be stymied in its essential purposes for want of funds—and the effective co-ordination of effort with allied societies is an essential.

Geography combines qualities of both the natural and the social sciences. While this constitutes one of its most notable values, it is also in many ways a practical disadvantage to the geographical profession. The higher organization of research and education in this country, as everywhere, tends to split along the line of cleavage separating the natural from the social sciences. A discipline that aims to straddle this line is regarded as a bit unorthodox by the financial powers that be, and funds for the support of geographical institutions and undertakings are not as readily secured as might be the case if geography lay wholly on one or the other side of the line. An outcome has been a widening gap within the geographical profession between those who seek to develop human geography and those who seek to develop physical geography, and the defection of many of the latter from the geographical ranks. To conquer Geographical Ignorance and Folly, our munitions must deliver a balanced fire in which the explosive elements of physical and of human geography are effectively combined. If the element of physical geography be unduly reduced, as seems the tendency, the fire loses strength.

How can the geographical profession secure the respect, recognition, and support that it deserves, not as representing either a natural science or a social science, but a science which amalgamates the qualities of the two? Possibly the solution is for the geographical profession no longer to depend so greatly as it has in the past on the powers that be—the Councils that dispense wisdom and the Foundations that dispense money—but to set up "powers that be" of its own. Professor Brooks has suggested a co-ordinating body representing the geographical societies of America and thru them the geographical profession as a whole. Such a body might conceivably function for geography somewhat as does the National Research Council for the natural sciences, the Social Science Re-

search Council for the social sciences, and the American Council of Learned Societies for the humanities. It might secure the endowment of a Geographical Foundation that would lend financial support to the several societies and to worthy geographical projects of all kinds. A strong case could be made for such a Council and such a Foundation, but whether geographically minded Maecenases could be found to put up the necessary funds is another question. Certainly it is something worth striving for.

TRAINING FOR GEOGRAPHY AND BUSINESS*

EUGENE VAN CLEEF
Ohio State University

The geographer in business is a relatively new phenomenon; but the businessman who is successful, partly as a consequence of his use of geographic data, is a phenomenon about as old as business itself. We who are involved in training young people for careers in the field of geography, but who have ambitions to engage in business, must know what the business world expects of a young man or woman just out of school. We may then hope to teach successfully certain essentials of the science of geography along with the fundamentals of business.

When one uses the term "business" he can mean one or more of many different types of activities. These include such fields as merchandising, banking, transportation, insurance and advertising. Obviously training for all of these specialized fields is impossible. Any curriculum combining geography and business must include the basic elements in each to which should be added those courses necessary to provide such specialized knowledge as is desired. It is not appropriate here to present detailed curricula of various possible types; but we do detail certain specific aspects which ought to characterize all of them.

THE CURRICULUM

In the first place, the usual basic courses in the elements of geography should be incorporated followed by certain regional courses. It is not necessary that students take all regional courses. In many institutions that has been a practice not well founded. I would require all students to study Europe, without which little

* Presented at the annual meeting of the National Council of Geography Teachers, University of Virginia, December, 1947.

of the rest of the world's anthropogeography can be comprehended. The remainder of the continents should be required only of those students desiring to specialize in one of them. After a student has had the basic courses and one major regional course, he should be able to work up any other region as the need arises.

Along with the geographic courses, the curriculum should provide basic courses in accounting, statistics, economics, salesmanship, banking, transportation, industrial management, and advertising. These courses will be effective in providing background material. If the student wishes to direct his interest into world trade channels he should take, in addition, such courses as foreign exchange, international commercial policies, the technique of exporting and importing, political science, some history and foreign languages. If he were thinking about real estate, he would choose courses in real estate principles, appraisal, city planning, perhaps corporation finance and one or more courses in business law. And so, for other aspects of business the student would build his training for a special field upon the foundation of geographic and general business principles respectively.

Application of Geography to Business

We have already suggested that the application of geography to business is by no means new. However, the formal training of young persons as geographers for the purpose of business careers *is* new. In fact, it is so new that we should recognize it as still in the experimental stage. A few men who have been trained as geographers or who have had a considerable dose of the subject and have offered their services to business, when doing so have been careful to avoid emphasis upon their geographic training, if they have mentioned it at all. One person has suggested that for the present it might be well for geographers to offer themselves as marketers, foreign traders, planners or something else depending upon the job, and only after they have demonstrated their value, casually reveal the significant contribution of their geographic training to their successful performance. This approach to the realm of business will have its supporters and its critics. I mention it only as a point of view expressed by some who have had actual experience.

Availability of Jobs

Now that we have our young people properly prepared we may discover we have placed the proverbial cart before the horse. We

should have asked in the first instance, "Are there jobs in the business world for geographers?" or "Are there *enough* jobs in the business world, demanding geographic training to warrant our giving encouragement to youth to prepare for them?" The answer to the first question is easy enough. There are jobs in business for geographers. The answer to the second question is much more difficult. We don't know how many jobs there are. As geographers, we might argue that there should be many. But such an argument does not ipso facto create them. We shall have to pioneer, giving encouragement to those aspiring to business careers, but so training them that in lieu of their securing a job in business they could still qualify as teachers, specialists in government positions or in other fields in which geography is fully recognized for what it is.

BUSINESS EXPERIENCE

Perhaps we should have indicated that an important part of the training of geographers for business careers calls for actual experience. During the summer vacation periods the student should get a job as a salesman or in some other commercial capacity. We would emphasize selling experience during one or two summers, at least. There is no finer training for the hard knocks of life in general and certainly as preparation for the business world in particular. No formal credit need be given by the school for such work. The personal benefits in themselves constitute adequate credit. And in passing we may note that if this exposure to the business world is made early in the student's career it will help him to decide whether or not he is likely to continue his training with enthusiasm or whether he would commit a grave error to pursue this course farther.

THEORY VS PRACTICE

I cannot refrain from cautioning persons who believe the standard curriculum in Economic Geography is adequate preparation for business. It is one thing to discuss the earth's resources in relation to mankind in general but quite another to know the immediate problems of Mr. A. who establishes himself in business for the purpose of securing certain raw materials to be converted into saleable products, to sell the products and to collect the accounts receivable. It is one thing to talk in the classroom about exchanges among the nations of their various commodities and the list of stimuli to world trade. But it is quite another thing to know how to initiate sales, to pack correctly for overseas shipments, to pro-

vide proper documentation, to adopt the right policy with respect to the terms of sale and to expedite a host of other matters vital to the achievement of international exchanges.

The businessman speaks in dollars and that's the "language" with which the Economic Geographer must be familiar when he presents himself for a job. If he has gained facility in this "language" then with his geographic background, he is in a position to be of unique value in many of the spheres of business already noted. If a geographer were asked by a businessman, "What contribution can you make to my business?", certainly a legitimate question, he should have a convincing answer. Let me answer the question by presenting cases. The sequence of these cases is of no significance.

Employment Cases

In a bank which engaged in international transactions a geographer was assigned the duty of investigating the natural elements, including the people, of those regions in which firms or nations were seeking credits. The geographer not only collected the facts but was called upon to interpret them with reference to the economic potentialities of the region.

An investment house some years ago employed a geographer, not on a full time basis, but in a consulting capacity to perform work somewhat analagous to that requested by the bank just noted.

A retail establishment of substantial size has had a geographer for some years who has been making market surveys and applying many of the theories of response to environment to current problems of merchandising.

Some geographers have been employed by aviation companies to assist in the determination of routes, in the preparation of travel literature for use of passengers, both actual and prospective.

A geographer has been employed by one of the largest processors of a fairly common mineral, to draw maps of their properties, to locate suitable sites for factories and warehouses, and to do some statistical work in association with distribution operations.

Perhaps the most notable instance of a geographer playing an outstanding role in business is that of one who is now president of one of the nation's most influential groups of manufacturers. He was trained in the field of geography and economics. When he was engaged in academic work he was, to my mind, one of our most logical and clear thinking geographers.

Many more cases are available. Time does not permit even listing them. From the illustrations given we can gain some appreciation first of the fact that there are jobs in the business world for geographers and secondly, that they can be quite diverse. Realtors, manufacturers of a considerable variety of commodities, railroads, agricultural organizations and many others either make use of geographers today, or should be making use of them. With proper initiative on our part; appropriate training of carefully selected individuals, a pioneering spirit and an abundance of patience we may well look forward to the day when the science of geography will be looked upon not only as a cultural subject but one possessing as important applied aspects as do chemistry, physics, and the biological sciences.

TRAINING GEOGRAPHERS FOR PLANNING*

HAROLD V. MILLER
Director, East Tennessee Office, Tennessee State Planning Commission

Several years ago Joseph Hudnut, Dean of the Graduate School of Design, Harvard University, questionnaired all departments of his institution, asking for suggestions on the education for young planners. One hundred and twenty courses of general study were recommended as "essential," seventy-five others were suggested as "desirable." These did not include courses offered under the specific heading of *planning,* nor was reference made to any period of apprenticeship. Dean Hudnut has suggested that after these thirty-five or forty years of training, the individual would need a few courses in philosophy to help him organize and evaluate all he has learned.

Fortunately, our field of discussion is not as broad as Dean Hudnut's inquiry. We are considering the enrichment or broadening of the geographer's educational experience to make possible his entering the planning field, and to make him more useful in planning activities. I am happy to undertake such a discussion, in the hope that the profession might profit by sharing viewpoints developed during more than a decade of practice.

It should be clearly understood that the following observations

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are from the standpoint of a person trained in geography and practicing in the field of planning, rather than from the standpoint of an educator. The speaker intends to attack no institutions nor will he guarantee that his suggestions are entirely feasible from the educational standpoint. The following observations are made in the light of the speaker's own personal philosophy of planning and geography and the suggestions relate to observable needs under that philosophy.

WHAT DO WE MEAN BY PLANNING?

I consider the essence of planning to be a philosophy, an approach, a way of doing things, a democratic process—rather than that planning consists primarily of a series of physical design problems; or that planning consists of drawing beautiful master plans for which there is not adequate machinery to translate them into improved facilities or conditions for human use.

In my present position as Director of the East Tennessee Office of the Tennessee State Planning Commission, I responsibly deal with every phase of city and regional planning. This office is the primary source of technical information and advice to city, county, and regional planning commissions over an area embracing approximately 1,000,000 population. Our work is not confined to the usual city planning problems of zoning, subdivision control, traffic management, and the other customary elements of a physical master plan, but includes as well, responsibilities in the direction of municipal finance, drafting of legislation, securing citizen participation in planning on a democratic basis, guiding the location of industries and encouraging the proper uses of all resources of the area. It may be that the activities of our office are practically unique in that we touch so many phases of city and regional concern and that in the process we follow thru with the local people themselves in helping them to develop the plan they want for their community. By the same token that our activities are unusually broad, there would be relatively little likelihood that a graduate from a course of study in geography with emphasis on planning would immediately find himself with such broad obligations. It is far more likely that he would fill a more specialized post in a larger organization, perhaps in a metropolitan setting. If he can foresee employment in a particular post with such specialized responsibilities then perhaps the training need not be as broad as that which I will outline.

May I make one further general observation bringing philosophy on planning a little closer to the job of planning. It is my conviction that the most beautiful architectural design or the most finished engineering study of a community or an area means little if the community's economy is not sufficiently strong to bear the cost of construction of the facilities designed. Such design is open to criticism, and is definitely bad planning. A competent geographer finds himself with a background to analyze the community, to recognize the functional relationships between its component parts, and, on this basis to assist in location or attraction of industry, expansion of trade and service, and whatever else may be necessary to firm up the local economy. Good training in economic geography will enable him to visualize the relationships and potentialities of the community or region in relation to its resources and even in relation to the remainder of the nation and the world. Thus, he is in a position to deal competently with the economic base of his community or region and in so doing insures the availability of the wherewithal to translate his best plans into facilities or conditions of value to human beings. (After all, *people* should be the central theme and objective of all planning.)

Planning as I see it is an approach, a way of doing things. That being the case, the details will vary from place to place and circumstance to circumstance. The detailed activities however, can be grouped into two major categories. For want of better words I will call these regulatory and creative. By regulatory measures I refer to measures in which the force of law is brought to bear to guide or control the development of the community or region. Perhaps the most widely applied of the regulatory devices is zoning. Zoning in the last analysis is a local law or ordinance dividing the area of jurisdiction into functional sub-areas which are recognized in the law as districts, and district by district guiding and controlling the uses of land. Another regulatory device is the control of the sub-division of land. In sub-division control a legally constituted body reviews all plats of proposed sub-divisions to insure that in the public interest adequate streets are dedicated, a pattern of lots will be established conducive to sound growth of the community, and to secure such physical improvements as local policy may require.

Under the heading of creative activities come the much larger range of specific undertakings. These will range from street and expressway planning, matters relating to schools, civic centers,

parks and playgrounds, industrial development, water supplies, sewage disposal, slum clearance, street traffic, urban transit, and inter-urban transportation, to matters of local government finance generally and in relation to specific improvements, local government reorganization in some cases, and finally to actual participation in or responsibility for the drafting of appropriate legislation to secure or facilitate the improvements indicated by the planning process.

Common Ground; Geography and Planning

It has sometimes been pointed out that a full-fledged geographer needs to know a great many things about a great many places. The planner is not so concerned about as many far away places as is the well rounded geographer, but the planner needs to know a great many more things about his area of concern. He needs to know not only all the pertinent *facts* about his town or area, but he must be alert to the functions of the physical parts of his area, and the functional interrelationships between its various parts. It is also important that he have the ability and the mental attitude to put to use what he does know in making his area of concern a better, more efficient, more profitable, convenient and healthful place for people to live.

All this brings me to a non-academic point I should like to make about the training of the geographer for planning. The geographer going into planning (or any other applied field, for that matter) must be willing to do the job at hand. I shall never forget the occasion of my giving a paper before a geographic society, only to have its presentation followed by comments from the floor generally commending the subject matter and the presentation, but raising the question, "But is this geography?" I would not deny my critics the right to raise that question under those circumstances, but the geographer going into planning should not be so trained that when he arrives on the job (and on the payroll) he holds himself aloof from assigned duties, challenging the assignment on the basis, "Is this geography?"

Specific Recommendations on Training

As indicated in the title, we are talking about geographers in planning, rather than a project for making planners out of geographers and turning the planning profession over to this new race.

Not many persons basically trained in geography will need to know intimately all of the ramifications of the planning field, at least unless or until they have advanced to positions of tremendous responsibility. In such case, they probably would begin to be administrators, depending on a staff of specialists to do the detailed work. However, additional background will better equip any worker either to do some of the specialized work himself, or competently supervise, understand, and appreciate the product and problems of his associates.

Of the customary courses in geography, the student will do well to include, beyond introductory courses, a substantial amount of work in urban geography, economic geography, cartography, and gain as much experience as possible in field techniques and photo interpretation. Regional studies generally will have informational and exercise value, and regional courses on North America or the United States should have definite content value, for, the chances are, the geographer-planner will probably be operating in this portion of the world.

The geography student interested in planning should elect some courses in planning, if his institution offers such courses. In some cases he will find inter-departmental programs or committees already established which can be of great value in selecting those available courses most nearly fitting his wants and needs. Such work will help prepare him to do a job in planning, or at least give him a chance to decide what, in planning, is of particular interest to him.

In his actual operations the geographer in planning will meet situations requiring design ability beyond his capacity. If he is well enough established in his work he can arrange the hiring of necessary technical assistance. Perhaps he could handle some problems of design pretty well if during his course of instruction he had elected a course or two in planning design.

From time to time legal matters will confront the planner. Fortunate is he who has found and elected a course or two in planning law and legislation.

Much of the effectuation of plans must be done thru existing branches of government and it is often the case that local government, particularly cities and towns below the metropolitan size class, do not have adequate machinery for effectuating a planning program. Thus, whether the problem is to use existing machinery

or recommend reorganization of existing government, one finds himself involved in matters of public administration. Good survey courses elected in public administration will be of value—even more so than equivalent time spent on extremely specialized courses in that field.

For persons simply interested in entering the field of planning there are numerous text materials and opportunities for preparation and self betterment. For work with local communities I have found no better text than *Local Planning Administration* published by the International City Managers Association and which can be purchased or can be used as the text for a correspondence course. Incidentally, you would be surprised at the amount of "geography" there is in this book. Then too, several of the schools of planning, M.I.T. for example, give intensive short courses on planning during the summer months.

For those who are interested in employment in a specialized job on a large planning staff, the related courses might well vary somewhat from those suggested earlier. For a person desiring to obtain a position of a research character with a large planning organization, electives in statistics, graphics, and cartography, would be of distinct value. If the job sought involves industrial development then a strong background of economic geography plus courses related to industrial economics and even some engineering would be of definite value. If one is interested in the recreational phases of planning then courses on park and playground and other physical recreation facilities and design might be found in physical education and landscape architecture departments. A background including some sociology would be of value to those interested in specialized work in the social phases of planning.

You will note that thus far I have not mentioned either geology or any of the biological sciences—fields in which many geographers have in the past been encouraged to take electives. I would consider courses in these fields to be of limited value to geographers going into planning except that economic geology would be of distinct value to the geographer interested in specializing in resource development phases of regional planning.

In all of this discussion I am assuming that the graduate training of the candidate for a planning position will have equipped the candidate with ample ability to appraise and secure base map material (or draw them up from field survey), to carry on field map-

ping (particularly land use) rapidly and accurately, and to secure, winnow, and evaluate existing data of all kinds relating to the area of concern.

The geographer interested in planning should practice the art of writing and speaking clearly and convincingly. He should train himself to be able to write popular newspaper stories as well as accurate, complete, water-tight technical reports and proposed laws. He should be able to mingle with people and put across his message whether it be in a neighborhood meeting of relatively unlettered citizens or before a legislative body or a meeting of thousands of scientific or professional people.

Planning is a relatively young profession. Thus far its personnel and leadership has been recruited largely from among persons basically trained in architecture, landscape architecture and civil engineering. As a result, there certainly are instances of planning taking the form of a beautiful piece of physical civic design without sufficient recognition of the site, situation, and economics of the community or region under consideration; without sufficient participation on the part of citizenry in the development of the plan; and without adequate attention to local political and administrative matters, which, in the last analysis, either put the plan into effect or cause it to be put on a shelf to die from neglect. Again, because planning is a young profession tomorrow's role for the planner is not fully clear. To some extent, tomorrow for planning will be what we make it. Under these circumstances, the planning profession can stand a generous leavening of geographers interested in planning who are willing to orient their training toward that end, and finally who are willing to put to practical use their knowledge and ability—not standing aloof and saying, "Is this geography?"

TRAINING GEOGRAPHERS FOR TRANSPORTATION*

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Of all of the trends in the field of geography which have budded (if not blossomed) during the past two decades, one of the most significant has been the expanded utilization of geography in business enterprises. To a few stalwarts, who from the turn of this century established the field of economic geography, go the credit and acclaim for recognizing the potential contribution which geography could make to the business world. Theirs was the spade work, the planting and the careful cultivation; today the first good blooms are now to be seen. There are few who are more conscious of the debt owed these pioneers than those who have worked in business.

But today the scene has shifted somewhat from the earlier picture. No longer is it necessary to defend the field of economic geography as a valid and valuable addition to the knowledge of all executive aspirants. With the rapidly expanding specialization in the structure of American enterprise, the functioning of specialists of all types has increased to a tremendous degree. More and more it becomes apparent that there is a use and a need for more than general geographic information. Truly there is a growing need for the geographic specialist and it is nowhere more apparent than in the field of transportation.

BUSINESS POINT OF VIEW

However, there are certain differences between being a business geographer and being any one of a myriad of other business specialists. It is essential to clearly understand these differences before venturing into the business world. What is more these differences must be visualized from the point of view of business and not from that of education. It is not necessary to analyze these points; they are plain business facts and they must be accepted. Simply stated they are:

1. Business wants practicality, not theory. By this is meant—what *are* the facts; not what they might be or could be or should be, but what *are* they.

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2. Business wants applied information, not pure information. In other words, geographic information must be applicable to specific problems in a particular business rather than encyclopedic, generalized information.
3. Business wants multiplicity of usage, not singleness of purpose. Breadth of application is often more important in a given enterprise than the solution to single small phases of smaller business problems.
4. Lastly, business wants to be shown concrete, dollars and cents returns, not intangible possibilities which may or may not eventually pay off. This does *not* mean that business is concerned only with the short-time view, but it *does* mean that all business planning is projected toward real, calculable returns.

APPLIED GEOGRAPHY

How are these business dictums to be interpreted by the field of geography? The answer seems quite obvious. There is and will continue to be very little use for pure geography in the business field. Any who have tried to enter business by saying, "I am a geographer," know that the phrase is no open sesame. It connotes little or nothing to the business man, and in consequence the one thing of which he is sure is that he does not need one. Geography to be useful to business must be *applied geography*. Only the person who can take his academic fund of geographic information and understanding, and apply it to a specific business in such a way as to clearly indicate its values, can hope to convince an employer of his utility and make his subject matter field pay off on the monetary line. It should be apparent, then, that one must be a geographer *plus* to make good in business.

In reality this is not too different a situation from what actually is the case for many high level business personnel. But numerically other occupations have the edge over geographers. A given company needs a number of accountants, insurance men, tax experts, traffic agents, and others; it will probably need only one geographer —a geographer plus. Such adaptability as is here suggested is far from easy, but it can be done. And the great single problem is to end the domination of the purist point of view, to cut, chisel and jam geography into every business facet to which it can be applied. Whether it loses its identity in the process is of much less consequence than the fact that it is there. Sooner or later its true iden-

tity will become apparent; that future can take care of itself. It is to get in and to give which is the number one problem today.

It is to be hoped that this introduction is not without value, for it establishes the viewpoint to be applied to the field of transportation. If the following application is shortsighted in terms of the entire field, it is because the writer's experience lies in but one form of transportation. It is hoped, however, that the analysis is sufficiently general to apply to all major forms of transport.

The Geographer and Transportation

Being a geographer and looking at the transportation business to determine those aspects in which geography can make its most pertinent contributions, I come up with three substantial possibilities: the research department, the traffic department and the advertising department. In a small company the geographer might be expected to function in all three; in the larger companies one's functions might be more restricted, but not necessarily so. In limiting the performance of the geographer to these three departments, other possibilities such as in-service training, educational services, technical consultation and special assignments are being sidetracked but certainly not ignored. In many cases these possibilities might be classified under research.

Research. Research is the most generalized of the three probabilities to be discussed, and perhaps it is the least stable. It is said of business research that when times are good the company does not need it and when times are bad they cannot afford it. More accurately, however, the business research geographer may be diverted into numerous non-geographic channels and only his astute adaptability will show him the ways in which his geographic training may best be utilized to meet immediate needs. The odds are many to one that he will be a lone-hand among a group of economists. He must work with them and on them to contribute his point of view. Often the geographer's best contribution can be made at the project planning stage or in the interpretation and graphic presentation of results. He will be expected to know the best sources of geographic information and to apply them to the problem at hand. Place, quantity, quality and exceptions within the geographic realm are constantly expected of the transportation-geographer, but the natural emphasis is upon the analysis of place. Transportation is concerned with the *movement of persons and things from place to*

place. Not only is this true in the restricted local sense but in the broader sense as well—regions, nations and even continents. The more that is known about place in all of its natural and cultural environmental aspects, the more adequate and surer is the transportation research. For example, the shortest practical air route from New York to South Africa is not via Miami and Natal but via the Azores, Dakar and Leopoldville. The best African air terminal is Johannesburg, not Cape Town. There are not enough missionaries and big-game hunters to support such a long air route even on a bi-weekly flight schedule. The most valuable Persian lamb skins in quantity are produced in the Southwest African Mandate, and they are lighter weight by almost half than the Russian or Afghan skins. These seemingly unrelated facts will occur to the geographically trained mind and, altho they may not seem very significant, they can be woven into a fabric which will pay off in dollars and cents.

The problems presented to a research group are diverse, but they are also multi-faceted. It is the rare and restricted transportation problem to which the geographer cannot contribute.

Traffic. The work of a traffic department is more than a routine of routes, rates, and claims, concerning which a series of manuals and tables have been constructed to give the proper answers. Transportation thrives or fails in terms of traffic. It is the traffic which pays off. The whole lengthy gamut of the world's commodities comes under the scrutiny of the transportation lines. Every commodity and every trade channel must be subjected to careful analysis to determine its potential value. New items are constantly sought, new routes developed, new sources of potential traffic investigated. Once again the geographer can play a significantly valuable role. The Persian lamb skins previously mentioned are a case in point. So, too, was the elimination of gold and diamonds as potential South African export cargo. This negative aspect is often of great financial importance. Business has not given up the old axiom of "a penny saved is a penny earned." To carry on the South African example: a geographer would know and could prove that little basis for trade could exist between two geographically similar major raw material producing areas such as South America and South Africa. To plan on moving trade commodities which do not exist is disastrous. Therefore, a route from the United States to South Africa via South America could expect little material help

from pick-ups in Brazil or Argentina destined for Johannesburg or in reverse on the return trip.

Of equal importance to the development of a new route is the astute analysis of "traffic generating areas." Such a trade concept is basically a geographical concept and its many ramifications remain as yet undeveloped. Traffic surely offers a broad front for the transportation geographer.

Advertising. Lastly, the advertising department offers substantial possibilities to the trained geographer. Here the scope of geography is perhaps somewhat less well defined. Clearly, however, there is the area of cartographic representation, which recently has found a multiplicity of uses in advertising, especially to the transportation business. Maps and graphic representations of geographic data have been found to have tremendous advertising appeal. Here is a source of visual information more readily comprehendible than the written word. Geographic training plus creative ingenuity pays high dividends in this field. So, too, does the checking and careful editing of cartographic misrepresentation.

There are additional facets of advertising which also utilize geographic data and principles. Particularly is this true of those transportation facilities which cater to passenger travel. Advertising has expanded to cover sizeable items in the business budget. There is now to be considered "institutional" advertising as well as "direct" advertising. The latter refers to newspaper, magazine, radio, poster and brochure ads. The former is indirect in that it concerns educational programs, pamphlets, maps, films, lectures and even books, which play up the broad values of travel rather than the specific trip. They urge travel sometime in the future for education, recreation or leisure rather than for the vital business engagement of tomorrow. Obviously the whole field of travel intrigues and involves the geographer. Who can better suggest what to look for, when to look and how to appreciate the natural and cultural environment of any place, than the person who has been trained in just that field of knowledge?

Training for Transportation

The training of geographers for transportation is implicit in the foregoing description. Without attempting to lay down a curriculum to be followed, the essence may be distilled off and a program of action suggested. The writer has no crystal ball to foresee

all the contingencies that a transportation geographer might meet, but the following is suggested as guidance for the would-be transportation geographer or his advisor.

1. At this stage of geographic penetration into the business world, no person should be encouraged to major in geography as an entreé into business, who can be easily dissuaded or discouraged from doing so. Only the person who is thoroly convinced that geography *must* be his life's work has a chance to make good. Opportunities are too few and the sledding too rough for any but the most enthusiastic.
2. A person must clearly have great adaptability. Pure geography has little specific use; academic information must be converted to practical applicability to business problems. To love geography may well mean a future in geographic education —not business.
3. It is scarcely possible to get too much geography. There is no college or university which gives too many geography courses. Yet the field of geographic information is so broad that graduate work in the subject is clearly essential. Consequently, the greater the wealth of geographic information, the greater the potential applicability in the field of transportation. If any emphasis must be suggested, then unhesitatingly it is suggested that economic and regional geography have more to give to the transportation business than does physical geography. But just as certainly field study, cartography, map interpretation, political and social geography are not to be omitted. In fact, it is here suggested that these studies might well be directed toward the solution of business problems. It would be eminently worthwhile if seminars assumed in some cases concrete objectives as an end to the methodological means being taught. Once again let it be stated that it is not possible to have too much geography.
4. Training in geography alone is not enough. This is possibly a bitter pill to take, but it is nonetheless a fact. As has been already pointed out, the transportation geographer will probably be a lone-hand. Therefore, he will work with business specialists of several types—the economists, the traffic manager, the advertising man, the engineer and many others. Being a specialist himself he need not be a business jack of all trades nor a junior genius, but he must be able to make

geography dovetail with the other business aspects. Therefore, in the field of transportation a general knowledge of the following non-geographic subjects would seem prerequisite to business success.

a. Statistics—It is not necessary to be a mathematical statistician, but a solid familiarity with statistical sources, methodology and use is essential. This is a clear-cut must.
b. Marketing—Never in transportation is it forgotten that the movement of goods facilitates but does not produce. Transportation is dependent upon markets.
c. Transportation—A course in the principles and fundamentals of general transportation is essential. Specialized courses would of course also have particular pertinence.
d. Business Finance—This is the basic language of business. It is an omnipresent element; it is an entering wedge; it is a key to innumerable contacts and opportunities.

In retrospect this program may seem idealistic. It is not. It is practical, it is possible, it is functional. It is the sort of program to be devised when geography educators settle down to the task of training geographers for transportation. Given the right human material to work with, students can be trained to become geographers who will make a positive contribution to transportation which will pay off in dollars and cents.

FOREIGN TRAINED GEOGRAPHERS: THEIR PREPARATION AND JOB OPPORTUNITIES*

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In the United States, most geographers are familiar with various professional fields which offer members of the geography profession opportunities for positions. Most of us are also acquainted with general aims of American college and university geography departments in preparing students for masters and doctors degrees. Many of us are not familiar with training aims of geography departments in other countries nor with the jobs available in those lands for people holding advanced degrees in geography. Recently I have received several answers to inquiries on the question "What are foreign countries doing in geographic instruction to train geographers for professions other than teaching?" Pertinent material on the topic received in this correspondence is included in the following paragraphs. Information is based on letters from geographers in Austria, Czechoslovakia, England, Finland, Sweden, Switzerland, The Netherlands, Yugoslavia and from a well known American authority on the U.S.S.R.[1] My research is by no means comprehensive. It is merely a beginning on the problem.

It appears safe to use H. Ogilvie Buchanan's description of general aims of geography teaching at London University to characterize the teaching approach of several European colleges and universities.

> We give no particular bias to the geography student with a view of fitting him more immediately into a particular niche at the end of his training. So far as I know, no school in the country is thinking along these lines. Our aim is rather to give as thoro all-round training in geography as we can, in the belief that the value of such training will prove itself in various fields of employment in addition to teaching.

Exceptions to the use of such generalization are evident, how-

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[1] Austria, Dr. Johann Solch, University of Vienna; Czechoslovakia, Dr. Julie Moscheles, Charles University, Prague; England, R. Ogilvie Buchanan, London University and E. W. Gilbert, Oxford University; Finland, Professor J. G. Granö, University of Helsinki; Sweden, G. Walldén, University of Stockholm; Switzerland, Dr. Hans Boesch, University of Zurich; The Netherlands, Dr. J. P. Bäkker, University of Amsterdam and A. Säs, The Netherlands East Indies; Yugoslavia, Professor Petar S. Jovanović, University of Belgrade; and Dr. George B. Cressey, University of Syracuse.

ever. For example, E. W. Gilbert of Oxford University writes, "The Colonial Office requires considerable geography for Colonial Administration Service employees and Mr. Steel has been made Lecturer in Colonial Geography to better meet these requirements." Mr. Walldén of Geografiska Institutet, Stockholm also writes that "those who go into government work take a specialized course in the Economy of Sweden—otherwise training for all geography students is the same."

Dr. Bäkker forwarded an outline of courses offered in each of three fields of geography at Amsterdam University where he is head of the department. These include (1) Physical Geography with an emphasis on meteorology and climate; (2) Physical Geography stressing geomorphology and soil science; and (3) Human Geography emphasizing what he calls socio-geography. The job opportunities for students majoring in (1) include work as a meteorologist, micro-climatologist or geo-physicist; those studying group (2) may find employment at the Institute of Soil Science, Department of Agriculture, Topographical Survey or at the Geological Survey; geographers majoring in socio-geography are likely to find employment in one of the following agencies: National Planning Bureau, Provincial Planning Bureau, Department of Social Affairs, Department of Economic Affairs, Department of Education. Graduates in socio-geography have been chosen for help in the education of German youth, for burgomasters and aldermen of social affairs in the British Zone of Occupation in Germany. Two students in this field whom the writer met in Amsterdam during 1945 are already in the Netherlands East Indies. In a recent correspondence Mr. Säs, one of these geography majors writes that "my contract calls for three years service in the Dutch East Indies. The newly established Department of Social Affairs needs graduates in socio-geography very badly. There will be a lot of field work to do and a lot of pioneering."

A member of the geography department in the University of Prague says that graduate research in geography places the student in touch with a number of offices that are likely to be interested in his type of work. These include the Army Survey, Town and Country Planning, Hydrological and Meteorological Services and Public Works. The last named agency stresses planning new lines of communication, trade and marketing research, adult education, journalism, regional museums, economic planning, statistical work and tourist propaganda.

So far it has been impossible to obtain statistics on the percentage of students from geography departments in all European colleges and universities who enter fields other than teaching. On the basis of present information it seems safe to say that well over half go into the teaching profession. Mr. G. Walldén of Geografiska Institutet, Stockholm writes that "70 per cent of the geography students in that school go into teaching as a profession"; and Dr. Hans Boesch, head of the geography department of Zurich University says that "probably 50 to 70 per cent of all graduates in geography go into teaching."

The trend may be away from this high proportion in countries which took an active part in World War II. R. Ogilvie Buchanan of London University states, "the influence of the war, which affected most of our geographers very intimately has been to widen appreciably the recognition that the geographer has a contribution to make in many spheres other than teaching. Instances that occur to me at the moment are appointments to the Civil Service of geographers in technical and in administrative capacities. Among those ministries and departments who now recruit geographers for technical purposes are the Ministry of Town and Country Planning, the Ministry of Agriculture, the War Office (Directorate of Military Survey) and the Admiralty (Hydrographic Department)."

In connection with the field of land planning, E. W. Gilbert of Oxford University says that "Mr. L. Silkin, Minister of Town and Country Planning, on January 30, 1947 introduced his new Town and Country Planning Bill in the House of Commons. In his opening speech he said his new bill would 'need the co-operative effort of economists, geographers, sociologists and other professions to be sure that all the facts about the area are known including the characteristics and wishes of the people.' That shows the British Government takes more notice of geographers than it used to."

I might add a personal comment on the need for thoro geographic training in approaching any problem of town planning. While in England two years ago I visited the home of a research worker in the field of land planning. This student had prepared a rather comprehensive group of maps, graphs and pictures. However, he included only one graph on weather and climate and this graph based on data of only one year. Obviously for a comprehensive survey he needed several graphs based on statistics for at least twenty or thirty years to obtain a good picture of the climate

of the city being studied. He had no thoro grounding in geography; had he been so prepared he would have understood better the need for long term statistics in the preparation of climatic maps and graphs. I need not tell you that most people interested in town planning of Britain do have a thoro grounding in geography or are careful to seek the advice of people who possess that background.

According to Dr. George Cressey of Syracuse University, planning affords a field for numerous Soviet geographers. He states in his letter

> The objective of Soviet Geography is to increase the productive capacity of the State. This means that strong emphasis has been placed upon practical matters of economic development, notably in the field of planning. It is reported that all planning boards, from those of the Union as a whole down thru the planning boards of the sixteen republics to those of minor divisions, have numerous geographers on their staffs. Unfortunately no specific information is available as to how they operate, but they are presumably concerned with charting resources, development, and distribution as they relate to political guidance of economic life.
>
> No list is available of Departments of Geography or of Soviet geographers, but it is understood that there are dozens of Departments spread widely across the country.

A statement by Dr. Hans Boesch brings to mind the fact that the neutral countries of Europe and other continents lack the war stimulus to the widening horizons in geographic study. Dr. Boesch says "you should never forget that Swiss geography is lacking the great stimulus geography received in Great Britain, the United States and Germany during the war. We still have to work step by step . . . but I am very confident."

To summarize European letters in answer to the question "What are foreign countries doing in geographic instruction to train geographers for professions other than teaching?" one may say that most schools aim for a thoro all round training for geography majors. As a result of this training and of educational needs in different countries, probably over half the geography graduate students enter the teaching field. The war has widened interest of European governments in geography and as a result many more professional opportunities are available. Town and country planning boards, The Ministry of Agriculture, The War Office, the Admiralty, The Department of Social Affairs, The Department of Public Works make up a list of important foreign government agencies which are increasing their staffs of well trained geographers. Similar agencies in neutral countries are also offering in-

creasing opportunities for geographers, but progress is slower than in lands where World War II provided a definite stimulus to increased employment.

The preceding paragraphs have been devoted entirely to a study of European countries. At the same time that inquiries were being forwarded to Europe the writer sent a similar number of questionnaires to geography departments in Latin America. Altho several replies have been received, namely from Chile, Peru, Mexico, Colombia and from leading authorities on Latin American geography in the United States—it seems best to wait for further replies before presenting the information.

FOREIGN TRAINED GEOGRAPHERS: THEIR PREPARATION AND JOB OPPORTUNITIES (LATIN AMERICA)

EARL B. SHAW
State Teachers College
Worcester, Massachusetts

From personal observation and from reading replies to a question, "What are foreign countries doing in geographic instruction to train geographers for professions other than teaching?", sent to geographers in Latin America and to authorities in that field in the United States, one comes to the conclusion that Brazil is probably doing more than any other Latin American country in training geography students for employment in tasks outside the teaching field. The Brazilian Conselho Nacional de Geografia in Rio de Janeiro is a government agency actually working on problems of all sorts—establishing boundaries of municipios, writing regional analyses of resources and opportunities and making colonization studies. I am indebted to Dr. Christovam Leite de Castro, Secretario-Geral of the Conselho, for a summary of the work of geographers associated with the Conselho.

The Conselho Nacional de Geografia, as a rule, selects its geographers from graduates of the Faculdade de Filosofia, found in Brazilian universities. Under the guidance of the Faculdade de Filosofia there are departments of geography and history offering courses covering a three year period. During the first year, geography students have classes in Physical Geography, Human Geog-

raphy and Anthropology; second year schedules include both Physical and Human Geography with Ethnography taking the place of Anthropology. Geographic emphasis in the third year features courses in the geography of Brazil and the ethnology of Brazil. In the fourth year major stress is placed on educational methodology with optional courses in geography. After the third year a student may receive the degree of Bachelor, but for teaching in the secondary schools the Licenciado degree, necessitating four years work, is required.

The Conselho offers professional opportunities for geographers in four major classifications: (1) Praticante de geógrafo; (2) Geófrafo-auxiliar; (3) Geógrafo; and (4) Geógrafo especializado. The particular opportunity available for each individual making application will depend upon his interests and background as well as upon the needs of the Conselho.

Besides work in the different Conselho departments, opportunities for service are offered to public officials and to interested persons especially qualified in the following fields: (1) Geographic excursions and field work; (2) Tertúlias—panels on especially selected subjects; (3) Seminários—round table discussions.

It is for field work in colonization problems that the Conselho has engaged Professor Leo Waibel formerly associated with the geography department at a leading American university. The Conselho has asked him to make a systematic study of the pioneer zones of the country. In describing his work, Dr. Waibel writes:

> In Brazil the problem of colonization has been studied so far only by politicians, sociologists and engineers. Professor Monbeig in Sao Paulo excepted, Brazilian geographers have shown little interest in this the fundamental problem of all Brazil.
>
> The country has become aware of its enormous uninhabited areas and has decided to do something about the situation. One thing is clear to me: if the methods and techniques which we have developed in the last decades are of any practical use at all, they must be applied here in Brazil. It is of course a big job, and I need assistance. It is the plan to send with me on each trip two or three young Brazilian geographers who are supposed to assist me in my work and whom I shall teach my methods and techniques of field work.
>
> It was quite a surprise to the Brazilian geographers, and to some even a shock, when I decided to begin my field work right in the heart of the country, in the State of Goias. They could not understand why I did not like Rio de Janeiro but hurried to go into the wild sertao. The answer is very simple. Being interested in colonization I had to go to the interior. Being furthermore interested in the original vegetation and its transformation by human activities, I decided to go to an area where human influence would be at a minimum. I believe that my observations on vegetation prove that it was a good idea to begin my field work so-to-speak from the rear.
>
> During July and August 1946, I travelled by railway, car, horse, and airplane in southern Goias and made a short trip into the west of Mato Grosso. After seven

years of desk work and teaching, I enjoyed this trip immensely, despite ticks, flies, and mosquitoes. Even worse was the food situation. The Goianos eat the kind of food which was consumed in Europe in medieval times, starch, meat, spices; no bread, no vegetables, and no fruits. Papayas and mangoes, both very delicious fruits, are rarely eaten by people but are given to swine. No wonder people are undernourished and suffer from all kinds of diseases. Never in my life have I seen so poor people as in Goias, blacks and whites.

In the State of Goias I found two different types of pioneer areas. (1) In the Colonia Agricola Nacional, which is run by the Federal Government, the best land is given free to poor people only; this means mainly Negroes and other colored people. The idea is to create a system of homestead farms. (2) In the lands which are owned by the State of Goias, a private and spontaneous colonization takes places. Here middle-sized farms are established to raise crops and stock. In both areas forests are destroyed and wasted without any consideration for the future.

In the State of Mato Grosso, I visited the Fundacao Brasil Central, a kind of chartered company, which tries to open up the Central Country in a north-south direction. Here all modern devices, especially airplane and radio are used to serve colonization. In Goias, the whole colonization depends upon trucks, cars, gasoline—all imported from the United States. The frontier is completely Americanized![1]

The Conselho has organized a *Registro* for teachers of geography thruout the country. Names, addresses, professional interests and works are all listed upon index cards. The advantage of the Registro is two-fold: (1) it permits the Conselho to keep in contact with all Brazilian geography teachers and to help them in their tasks; (2) it provides a list of those interested in the publications, reviews, pamphlets and maps prepared by the Conselho and offers the Conselho opportunity to enlarge the readers' geographic interest and knowledge.

The Cultural Section of the Conselho is a department especially stressing the expansion of geographical knowledge. It maintains: (1) A *Geographical Museum of Brazilian Environment,* with objects classed according to regions and available for showing to pupils of secondary schools; (2) *A Library* of most frequently consulted geographic works is available to members of the Cultural Section; (3) *The Registro* of Brazilian geography teachers; (4) *An Educational Section* where books are reviewed, courses planned, and papers prepared for the "Boletim Geográfico"; (5) A section of *Cultural Exchange.*

ARGENTINA

Concha Romero James, Chief, Division of Intellectual Cooperation, Washington, D.C., writes that in Argentina, the Universidad

[1] Excerpt of a letter to Dr. Wellington Jones of the University of Chicago, published in a newsletter of the Association of American Geographers, 1947.

Nacional de La Plata and the Universidad Nacional del Cuyo at La Plata and Mendoza respectively, both offer a doctorate with a major in history and geography. According to Andre Simon-pietri, Secretario, Instituto PanAmericano de Geografia Historia, "There are a number of well-known geographers in Argentina concerned with governmental work, e.g. in the ministry of aeronautics, for example on climatological matters; in the National Committee on Geography at work on the preparation of the Geographical Year Book. This gives a complete statistical survey of the physical, economical and even biological aspects of national life. The majority of these geographers are locally trained, altho some of them have studied abroad."

Chile

Professor Humberto Fuenzalida, Head of the Department of Geography, University of Chile, whom I met at Instituto Pedagogico de Caracas in 1939, wrote in some detail about courses of study offered at the University of Chile. By completion of forty-six hours of specified geography courses the degree of Profesor de Estado is attained. Another course of study involving forty-six semester hours is taken by students wishing the degree of Geografó. From Dr. Fuenzalida's description of work for the two degrees I would judge the first is taken by those planning on teaching geography as a career and the second by those who seek geographic field work in government employ. Commencing in 1947, the University of Chile now offers a doctorate in geography.

In describing the work of the Instituto Geografico Militar, Dr. Fuenzalida says that the organization's main function is that of mapping Chile. Within the organization are sections devoted to "Geodesia, Topografía, Cartografía, Aerofotogrametria, Dpto. Comercial y Catastro Nacional (national census)." The officers who teach and administer the Instituto Geografico Militar are themselves trained in the Academia de Topografía y Geodesia and Academia Politécnica.

No statistics are available for the ABC countries of South America relative to emphasis in preparation for geography teaching and for other professional work in geography, but it is fairly obvious that some stress is given to both fields. It also seems clear that geographers obtain jobs other than teaching in the three countries.

COLOMBIA

Professor Ernesto Guhl from Escuela Normal Superior de Colombia in Bogotá is rather pessimistic about the outlook for geography in Colombia. He says that no college or university has a department of geography and that more interest is shown in the field in the "Seccion de la Especializacion de Geografia" of which he has charge than in any other place. Government work in astronomy, geodesy, topography and mapping is taken care of by civil engineers, and government investigations in the field of economic geography are undertaken by people possessing no adequate geographic background. He writes that he has tried to sell the government on an Instituto Geografico but finds little interest displayed in the project. He ends his letter by saying "This lack of interest in geography in the tropical Andean countries certainly has an anthropogeographical explanation."

PERU

Dr. F. W. McBride has been trying for the past several months to interest Peruvians in the development of a Geographical Institute of the University of San Marcos. He writes: "My idea in setting up this Institute for the Peruvians has been precisely to offer training for students for fields other than teaching, for teaching possibilities here are very limited. I had in mind various possibilities of Government employment, both military and non-military. I have discussed with officials in Government departments the future for a trained professional geographer in agriculture, fisheries, mining, conservation, irrigation, transportation and other fields, and have found that the possibilities looked good enough to go ahead with the Institute. But nothing definite may be reported as yet; it's too soon to anticipate. As to the past, I can only say that very few courses in geography were scattered thru the various colleges of the University, none very scientific, and no organized curriculum. Until now, there have been no trained geographers offering the courses, no full-time professors in the field, and no one earning his entire living from the work, as is true of the whole staff of San Marcos. Romero, who teaches Economic Geography of Peru, one of the best men on the Peruvian staff, is a lawyer and a senator."

MEXICO

In Mexico[2] there are only two schools that give geography courses on a university level. These are both located in Mexico City. They are the Universidad Nacional Autónoma de México and the Escuela Normal Superior. Both have departments of geography. The Universidad has the larger department and offers the more advanced courses.

The Universidad department offers the masters and doctors degrees. Three years of study (six courses a semester) and a thesis are required for the masters, and for the doctors six additional advanced courses and a thesis are required. Usually one year of study beyond the masters degree is sufficient for the doctors. (To enter the Universidad or the Escuela Normal Superior, a student must have a *bachillerato,* obtained at graduation from a secondary school; or he must have a teacher's certificate. Usually the bachillerato is more or less equivalent to our junior college certificate.) Course subject matter and course requirements have been patterned after those in the United States. One year of mathematics and courses in physical geography (meteorology, climatology, cartography, elementary geology and geomorphology) and cultural geography (various regional courses, statistics and demography) are required for the masters. For the doctors, courses in geophysics, photogrammetry and laboratory courses in meteorology, climatology, cartography, geology and soils are required.

A critical observer of the Universidad department of geography would probably sense opportunity for improvement by a strengthening of the faculty. There are only four geographers on a staff of ten, of whom the Cuban geographer Jorge A. Vivó stands out conspicuously. The other six staff members are scholars of the old school, men with a variety of interests, and specialists, such as the mathematician Martínez Becerril and the geologist Robles Ramos. All the faculty must give courses in one or two other institutions in town or engage in government work or private business in order to make a decent living.

The department has been in existence for several years, but really has begun to function and to turn out students only since 1943. To date, two students have obtained masters degrees in

[2] The information on Mexico is taken from a personal letter sent by Professor Robert C. West of the Smithsonian Institution, Institute of Social Anthropology, Mexico, D.F.

geography. Eighteen majors are *pasantes* (those having completed all requirements for the masters degree except the thesis). In addition there are twenty-eight to thirty students majoring in geography at the Universidad.

The department of geography in the Escuela Normal Superior was started in 1936 and is now headed by the Cuban geographer Jorge Vivó. Only the masters degree is offered and courses are not as numerous or as technical as those of the Universidad. Many of the Universidad faculty are on the Escuela Normal Superior staff.

Opportunities for graduates in geography in Mexico are few. Of the eighteen pasantes and two graduates of the Universidad, five have found work in their field in government offices, thirteen have gone into teaching in secondary schools and in schools of college status (mainly normal schools) and two have been hired as professors by the geography department staff. Of those in government work, one is with the Dirección de Geografía in Tacubaya, one is with the Secretaría de Recursos Hidráulicos, two are research geographers in the Instituto de Geografía de la Universidad de México. All those who go into teaching must take a rigid course in teaching methods.

The Escuela Normal Superior has graduated fifty-four students with masters degrees, all of whom, naturally have gone into teaching in secondary schools, mostly within the Distrito Federal.

Geographical research similar to that in the United States has shown little progress. With the coming of Jorge Vivó a more or less definite research program has been established. Those mainly responsible for the program are Vivó Maldonado (a biologist and geologist with a Ph.D. from the University of Kansas) and Osorio Tafall (geologist and oceanographer). The most active part of the program is that devoted to the translation and publication of important foreign geographical works. Most of this is being done under the auspices of the Fondo de Cultura Económica. Oscar Schmieder's three volume work on the Americas has been translated from the German and published in a single volume called "Geografía de las Americas." Whittlesey's "Earth and State" is now in press; and Newbigen's book devoted to the study of animal and plant geography together with Köppen's "Grundriss der Klimakunde" have been translated and are now ready for printing. The physical geography section of Finch and Trewartha, "Elements of Geography," "General Cartography" by Raisz and

"Elements of Soil Conservation" by Bennett as well as other similar studies are being translated. A translation program has also been started under the auspices of the Sociedad Mexicana de Geografía y Estadística. Leo Waibel's work, "The Sierra Madre de Chiapas" has been published and several of Sapper's works on Central America are being translated.

In recent years, some progress has been made in original research. Pedro Carrasco's book devoted to meteorology has been published; his study on cosmography and Osorio Tafall's work on oceanography are being edited by Fondo de Cultura Economica. Several studies such as "Los Volcanes de Mexico" by Esperanza Yarza, a bibliography of geological works on Mexico, and a dictionary of geographical terms are being published by the geographic section of the Sociedad Mexicana de Geografía y Estadística. However, very little geographic material appears in the Boletin of this society. In recent years, important contributions to the geomorphology of Mexico have been made by the geologist Robles Ramos. Worthwhile map work is being done by the Comision de Cartografía (government sponsored) and by the Servicio Geográfico Militar. Finally, many important articles on the geography of Mexico have appeared in the Revista Geográfica, put out by the Instituto Pan-Americano de Geografía e Historia. Unfortunately, this review has ceased publication owing to the shift of the section of geography of the Instituto to Rio de Janeiro.

PUERTO RICO

Because a Puerto Rican geographer, Dr. Rafael Pico, has achieved considerable success in the field of land planning, it may be well to mention the work offered in geography at the University of Puerto Rico. For some time university authorities have brought in geography teachers from beyond the island's borders. The author served as visiting professor in geography during the last semester of 1931-32 and again during the summer of 1940. Dr. Pico took his first work in geography in the author's classes and in those of Dr. C. F. Jones of Northwestern University, also visiting professor at the University of Puerto Rico in 1931-32. After coming to the United States for his doctorate, Dr. Pico returned to the University of Puerto Rico to establish a department of geography. But he was needed in land planning on the island; and altho he is still connected with the university, his major interest is with

the Puerto Rico Planning, Urbanizing and Zoning Board of which he is the chairman. Last year the University called Dr. Salvador Massip, the well known Cuban Geographer as visiting professor in geography.

SUMMARY

Before summarizing and drawing conclusions from the preceding paragraphs, it is well to point out that this effort is no attempt to make a comprehensive survey of the subject. Like the preceding study on Europe, the article is merely a start on a major problem. But the start does call attention to certain major facts.

Probably Brazil is doing more than any other Latin American country in training students of geography for employment in tasks outside the teaching field. Argentina and Chile are giving good geographic training and at least one school in each country is offering a doctorate either in geography alone or in geography and history. Little, if any, graduate work is offered either in Colombia or Peru, but there is hope for a well organized effort in the latter country. Progress is also slow in Mexico, altho some signs of improvement are in evidence. In none of the three countries is there much opportunity for geographers to find jobs outside the field of teaching. Thruout much of Latin America many who are attached to university faculties are part time teachers with a salary schedule so low that they must of necessity supplement their income by some other means. Many Latin American geography teachers giving graduate work and many Latin American professional geographers go to foreign countries to take advanced degrees after obtaining undergraduate credit in universities of their native lands. In the future this tendency may slowly decline, especially in the ABC countries of Latin America.

OUR OIL SHORTAGE

RAYMOND K. CASSELL
Indiana University

Shortage of oil was understandable during the war years when increasing quantities were consumed in the domestic manufacturing, transportation, and agricultural industries, and in the zones of hostilities by ships, planes, trucks, tractors, and mobile fighting equipment. We were aware that our ally demands for more and more oil plus the curtailment of foreign trade in oil made for the most acute shortages.

Now, nearly two years removed from the beginning of the "peace," congressional committees are discussing the measures to be adopted in order to relieve the prevailing short supplies, and the larger distributors are actually rationing their products to local retail outlets.

The consumer who is today caught short quite naturally wonders about the disposition of the oil no longer used in the war effort, and the great quantities normally imported. If he asks the local distributor about the low supply he may receive any of the several stock answers, namely, that as a nation we are using much more oil than we did ten years ago, particularly now, when oil surpasses coal as the principal source of energy; that while we are producing at maximum capacity the present supply problem is mainly one of inadequate refining and transportation facilities; or that we are running out of oil, a position taken by some oil industry spokesmen who insist that we should not expect to continue to produce two-thirds of the world's oil from less than one-third of the proven reserves, that speeding up production simply hastens the time when the resources of the United States will be exhausted.

PRESENT CONSUMPTION

The current Senate and House probes have revealed the fact that since 1941 our per capita consumption has increased more than 25 per cent. The growing number of motor cars, trucks, busses, industrial and home oil burners, diesel engines, and horseless farms has brought the nation to the point where it is using more oil than it is producing. There are 1,500,000 more trucks, 1,000,000 more tractors in use now than before the war. Since 1941 the increase in use of oil by railroads has jumped by 58 per cent, and 92 per cent of all locomotives on order are diesels. Con-

sumption of oil for production of electricity is up 47 per cent, and 68 per cent more home heating oil is now in use.

The increased production of oil which was stimulated by World War II has all but met the present growing demands which are now greater by 15 per cent than during the peak consumption period of the war. The American Petroleum Institute believes that the industry will manage the present emergency by making a wider use of existing transportation facilities (tank barges, tank ships, tank cars, trucks, pipelines), and as more steel becomes available refinery and pipeline additions will enable the industry to bring supply into balance with demand.

OIL RESERVES

That we are running out of oil is a statement born of competitive propaganda within the industry itself. Those concerns with large foreign holdings, naturally desiring our markets, would have it understood that larger quantities of foreign oil must be imported if we are to protect our domestic reserves. On the other hand companies who do not hold sizable foreign concessions, fearing that importation of cheap foreign oil might endanger their competitive position, would have it believed that domestic supplies are entirely adequate. Official statistics show that our country's known reserves in the ground at the end of 1946 were at the new high record of 20,873,560,000 barrels, enough to last from twelve to fifteen years at present rate of consumption without any new discoveries. Estimates on future reserves are controversial. Some in the industry believe that our undiscovered resources are vast and that future chances of discovery are greater than ever before. Yet others contend that we can no longer find oil as fast as we can use it.

The most optimistic note on reserves has to do with oil synthetics. A new process of economical liquefaction of natural gas, now nearing commercial applications, will, it is estimated, extend the quantity of the known reserves by one third. More significant from a long-range view is the production of oil from coal, the mineral which the U. S. Bureau of Mines estimates makes up 98 per cent of the nation's fuel reserves. The Standard Oil Company (NJ) in collaborations with two Pennsylvania coal companies at a pilot plant in Liberty, Penn., are exploring possibilities of making gasoline and gas fuel of high heat value from bituminous coal. If this project proves successful there will be little need for concern about oil reserves.

RALPH H. BROWN

1898-1948

Dr. Brown, Professor of Geography at the University of Minnesota and a frequent contributor to the JOURNAL OF GEOGRAPHY, died of a heart attack February 23, 1948. His death will be regretted by many readers of the JOURNAL to which he contributed five articles and forty-two reviews. His reviews were invariably so excellent that the editor permitted a score to be longer than most reviews in the JOURNAL.

Professor Brown served geography in several ways; he taught successively at Iowa State Teachers College, Peabody College for Teachers, University of Colorado and University of Minnesota (since 1929). He was secretary of the Association of American Geographers for four years and editor of its *Annals* since January, 1947. Besides numerous articles and reviews he was author of two books. *Mirror for Americans, Likeness of the Eastern Seaboard, 1810,* was a special publication of the American Geographical Society, 1943. This scholarly work of 344 pages will long be consulted. A textbook, *Historical Geography of the United States,* is an excellent 604 page survey of the character of American regions in early times and will be decidedly useful to those who seek an understanding of the backgrounds of present day America.

Dr. Brown was an exceptionally earnest worker of superior qualifications for the work he did and for the much additional work he hoped to do. The heart attack which ended his useful life was unexpected; he worked to the last.

Dr. Brown had four special interests: 1) To increase the understanding of our backgrounds. This was done by his extended studies of historical geography. 2) To share with others the results of his own studies and those of other earnest workers. This he did by skillful teaching and by his writing. 3) A third special interest was his desire to strengthen geography, illustrated by his painstaking work as secretary and then as editor of the A.A.G. 4) Another great interest, not least, was his fine family. He is survived by a wife, two daughters and a son.

We should not merely regret his passing; we should also be grateful for all the fine teaching, writing and other work which he did for geography.

S. S. VISHER

THE NATIONAL COUNCIL AT WORK

COMMITTEE ON PREPARATION OF LISTS AND BIBLIOGRAPHIES OF MAPS

At the Charlottesville meetings the Executive Board approved the Report of the Planning Committee. The report "recommended that a committee of three be appointed for three years to prepare or have prepared material suited to publication in leaflet form. The first topics for the series should be selected from the following list or from topics approved by the Executive Committee: A bibliography on the use of maps in teaching; A list of map publishing companies; A list of maps of the Far East useful in teaching at the high school or college level; Suggest map activities at the intermediate or junior high school level; A list of selected maps produced by government agencies and now available for teaching."

The following committee was appointed in March: Katheryne Thomas Whittemore, State Teachers College, Buffalo, New York, Chairman; George Corfield, Oklahoma A & M College, Stillwater; Margaret S. Chew, State Teachers College, La Crosse, Wisconsin. Members of this committee will appreciate suggestions.

REPRESENTATIVE ON FULBRIGHT COMMITTEE

At an Executive Board meeting, Dr. Alfred H. Meyer was made official representative of the N.C.G.T. on the Fulbright Act Committee. Dr. Meyer is chairman of the A.A.G. Fulbright Act Committee.

SURVEY OF RESEARCH IN GEOGRAPHIC EDUCATION

Dr. Henry J. Warman, Clark University, is chairman of the committee.

The Planning Committee suggested that this committee be appointed for three years to:

"1. List the theses in geographic education completed after 1945 and, as far as possible, those in progress.

"2. Discover what geographers are carrying on studies, both formal and informal, in geographic education, and which geographers have special interests in aspects of geographic education, as for example, in evaluation.

"3. Learn what departments of geography or institutions offer special services designed to increase the effectiveness of geography teaching (other than course offerings).

"4. Discover which departments of education, including visual education, encourage graduate and research work in geographic education.

"5. Prepare the information gained in form suited to its nature and in accord with the plans of the publications and planning committees, as for example, annual lists of theses completed and in progress."

ASSOCIATED AND AFFILIATED ORGANIZATIONS

From time to time I hear about the splendid work that is being accomplished by associated and affiliated organizations. Will presidents or secretaries and state coordinators please send information about your activities to Professor George J. Miller, Editor of the JOURNAL?

Have coordinators or officers of associated and affiliated organizations seen *The Illinois Bulletin of Geography* prepared by the Illinois Chapter of the National Council of Geography Teachers? If not, perhaps the editor of the *Bulletin,* Professor Flemin W. Cox, 803 West Mill, Carbondale, Illinois, can supply you with a copy. Are there other bulletins? Who are their editors? Would you like to have a list of the editors and their addresses published on this page?

THOMAS FRANK BARTON, *president*

EDITORIAL NOTES AND NEWS

After June 5, the editorial offices of the JOURNAL will be moved to the Department of Geography, Indiana University, Bloomington, Indiana. All correspondence concerning manuscript and articles, or announcements to appear in the JOURNAL, should be sent to that address.

Our attention has been called to a typographical error in the March issue of the JOURNAL. The error in spelling has changed the meaning of the author. The correction should be made in the abstract of the article entitled "Geography in the Teacher Education Program" by Alfred H. Meyer. The last sentence of the second paragraph on page 98 should read: *Anachorisms* in geography . . . can no more give a correct interpretation of human affairs than can anachronisms in history.

The American Geographical Society of New York has announced awards for 1948 of three of its gold medals.

The *Cullum Geographical Medal* to be awarded "to those who distinguish themselves by geographical discoveries, or in the advancement of geographical science, particularly citizens of the United States of America," was awarded to Hugh H. Bennett, chief of the Soil Conservation Service, United States Department of Agriculture. Dr. Bennett is the founder and leader of the soil-conservation movement in the United States and has been called "America's Great Soil Doctor."

The *Charles P. Daly Medal* to be awarded "for valuable or distinguished geographical services or labors," was awarded to Henri Baulig, professor of geography at the University of Strasbourg, France. Professor Baulig is one of the world's leading geomorphologists, and his two-volume work on North America in the Geographie Universelle series has been described as the "best general regional geography of North America in any language."

The *David Livingstone Centenary Medal* to be awarded "for scientific achievement in the field of geography of the Southern Hemisphere," was awarded to Frank Debenham, professor of geography at Cambridge University. He was a member of the Scott Antarctic Expedition of 1910-1913 and was a prime mover in the organization of the Scott Polar Research Institute and its Director for twenty years. As a teacher he has also contributed notably to the advancement of geographical knowledge.

Syracuse University is adding two new members to its geography staff for next college year. DR. ROBERT E. DICKINSON, formerly of the University of London, will have charge of the work in Political Geography, the Development of Geographic Thought, and the Geography of Europe. DR. HENRY M. KENDALL, formerly of Amherst, will assume responsibility for introductory work in Geography and Climatology.

Central Washington College of Education at Ellensburg, Washington, is offering a course on the Columbia River, June 16 to July 16. Part of the course will be devoted to three field trips comprising ten days. Travel will be by chartered bus. The routes traversed will include studies of the area in and about the Gingko petrified forest, the Coulee Dam, the McNary Dam, and the fishing base near Astoria. The field work will be preceded by assigned readings and lectures scheduled on the campus where housing and meals may be secured. For further particulars write to R. M. Shaw, Professor of Geography, Ellensburg, Washington.

The Rand McNally Map Program

Rand McNally School Globes and Wall Maps are not an assortment of classroom equipment. The maps in Rand McNally Geographies and Histories are not merely visual aids. They are all parts of a complete, graded program of teaching materials.

In the Rand McNally Geographies, for instance, note how the maps promote gradual development of map skills and geographic concepts. In each book, the maps are closely related to the text.

Note the unusually large, colorful maps in the Rand McNally Histories. They parallel the map program in the Geographies, grade by grade.

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Courses in Geography will include Cartography, Economic Geography, Geography of New England, Geography of the Pacific Area, Geography of South America, Political Geography, and Regional Physiography of North America. Research work will be given special direction.

The Saturday field trips, so popular in pre-war days, will be resumed in association with the course *Geography of New England.*

Work will also be offered as usual in Biology, Business Administration, Chemistry, Economics, Education, English, French, German, History, Mathematics, Psychology, and Spanish. Substantial courses in Sociology have been added.

Each six-week undergraduate course yields credit for three semester hours. Graduate credit may be earned in a limited number of fields. Tuition for two courses (a full program) for six weeks is $76.00.

Dormitory accommodations are available for men and for women.

For further information address: The Dean, Clark University, Worcester 3, Massachusetts.

NEW PUBLICATIONS

Alex L. Ter Braake. **Mining in the Netherlands East Indies.** Bul. 4 of the Netherlands and Netherlands Indies Council of the Institute of Pacific Relations, 10 Rockefeller Plaza, New York 20, N.Y. 1944.

This booklet surveys the geological background of mining and the mineral policy and regulations of the government. Separate chapters are devoted to specific minerals mined.

Survey of Terminals and Landings on the Inland Waterways of the United States. Vol. 1. Mississippi River. 131 pp., 6 charts. Illustrated; Vol. 2. Ohio River. 222 pp., 4 charts. Illustrated; Vol. 3. Tributaries of the Ohio River. 217 pp., 2 charts. Illustrated; Vol. 4. Tributaries of the Mississippi River. 82 pp., 1 chart. Illustrated; Vol. 5. Atlantic Intracoastal Waterway (Miami River to Hampton Roads, Va.). 130 pp., 4 charts. Illustrated; Transportation Lines on the Mississippi River System, 1946. Transportation Series No. 4, 213 pp.; Locks and Dams of the United States, Navigation Data. 18 pp. Prepared by the Board of Engineers for Rivers and Harbors, War Department. For sale by Superintendent of Documents, Washington, D.C.

Descriptions, locations and statistical data.

Hammond's Comparative World Atlas. 48 pp. Illustrated. C. S. Hammond & Co., 88 Lexington Ave., New York 16, N.Y. 1947. 50 cents.

The distribution of numerous physical and cultural features is presented on maps of the world and of the continents drawn to scale on various projections. A brief description of map projections and of land types by Erwin Raisz is included; also a gazetteer—index of the world.

Syracuse University, Syracuse, New York, again offers a joint program of field training with Northwestern University for Graduate students during the summer of 1948. Camp headquarters will be at Lannon Field Farm 17 miles northwest of Milwaukee.

The 1948 camp will be the third held at Lannon. Field seasons in 1946 and 1947 have proved the area to be an excellent locality for field training purposes. It is in a region of complex glacial deposition. Within easy access are a wide variety of land forms, soils, and vegetation. Rural land use is dominated by dairying but includes a wide range of other types—agricultural, recreational, and industrial. Urban land use extends from highly complex metropolitan Milwaukee to simple rural hamlets.

The program is designed to provide intensive training in the recognition and mapping of physical and cultural features, the use of various forms of maps and aerial photographs, and the use of field data in geographic research. Opportunities are provided advanced students to make special field investigations including research for thesis purposes.

Excellent camp facilities for living and working are available. Transportation costs are prorated. The course carries six quarter hours credit at Northwestern and four semester hours credit at Syracuse. The group will assemble at Evanston on August 16 for one week of preliminary instruction. Four weeks in the field ends September 18.

Graduate students may register in either of the universities and may address inquiries to either of the two departments.

Sidman P. Poole, Thomas Frank Barton, and Clara Belle Baker. Geography Foundation Series—*Through the Day*, 128 pp., $1.28 list; *From Season to Season*, 160 pp., $1.44 list; *In Country and City*, 224 pp., $1.96 list; The Bobbs-Merrill Company, Indianapolis.

The three books of this new series are designed to provide a readiness program in geography—to lay a foundation in the primary grades for the study of geography in the intermediate grades. Their purpose is to provide a meaningful approach to the formal study of geography, and thus to eliminate many difficulties that arise in studying intermediate school geography. In view of this purpose, they merit special attention because the field of geography readiness long has been neglected.

The books are scientifically planned and attractively made. The content is based on simple geographical concepts, selected and graded on the basis of functional values, both in day-by-day living and as an approach to geography. These concepts emphasize such basic topics as community living, food, clothing, shelter, transportation, and communication. Most of the materials are presented in story form, the stories dealing with the activities of children comparable in ages to the children reading the books. The sentence structure and vocabulary have been carefully controlled, the controls corresponding to those of the best graded basal school readers for the same grade levels. The books are beautifully illustrated with four-colored drawings depicting the activities of children.